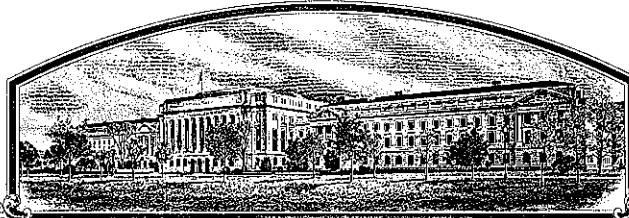


No.

9400209



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Pioneer Hi-Bred International, Inc.**

Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXPOSE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'2643'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this 30<sup>th</sup> day of November in the year of our Lord one thousand nine hundred and ninety-four.

Attest:

*Kenneth H. Evans*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*Mike Egan*  
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Pioneer Hi-Bred International, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO. ABF0205D5	3. VARIETY NAME <u>'2643' AAA</u>
4. ADDRESS (street and no. or R.F.D. no., city, state, and ZIP) Dept. of Wheat Breeding R.R. 1 Box 297A Windfall, IN 46076		5. PHONE (Include area code) (317) 945-7906	<b>FOR OFFICIAL USE ONLY</b> PVPO NUMBER <u>9400209</u> F I L I N G Date Time <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. F E E S Filing and Examination Fee: \$ <u>2,325.00</u> Date <u>June 28, 1994</u> Certificate Fee: \$ <u>275.00</u> Date <u>October 11, 1994</u>
6. GENUS AND SPECIES NAME <u>Triticum aestivum</u>	7. FAMILY NAME (Botanical) gramineae		
8. CROP KIND NAME (Common Name) Wheat	9. DATE OF DETERMINATION August 1, 1990		
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation			
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Iowa		12. DATE OF INCORPORATION May 1926	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Dr. Gregory C. Marshall Pioneer Hi-Bred International, Inc. R.R. 1 Box 297A Windfall, IN 46076 PHONE (Include area code): (317) 945-7906			
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow INSTRUCTIONS on reverse) a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety. b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement. c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety. d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of Variety. e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership. f. <input checked="" type="checkbox"/> Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office <u>6/24/94</u> g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,150) made payable to "Treasurer of the United States."			
15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See section 83(a) of the Plant Variety Protection Act.) <input type="checkbox"/> YES (If "YES," answer items 16 and 17 below) <input checked="" type="checkbox"/> NO (If "NO," skip to item 18 below)			
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO		17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S. <input type="checkbox"/> YES (If "YES," through <input type="checkbox"/> Plant Variety Protection Act <input type="checkbox"/> Patent Act. Give date: _____) <input checked="" type="checkbox"/> NO			
19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> YES (If "YES," give names of countries and dates) <input checked="" type="checkbox"/> NO			
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF APPLICANT (Owner(s)) <u>Gregory C. Marshall</u>		CAPACITY OR TITLE <u>Coordinator of Soft Winter Wheat Breeding</u>	DATE <u>6/24/94</u>
SIGNATURE OF APPLICANT (Owner(s))		CAPACITY OR TITLE	DATE

14A. Exhibit A. Origin and Breeding History of Pioneer Wheat  
Cultivar ABF0205D5.

2043 AAA-2 Nov 1994

Pioneer cultivar 'ABF0205D5', a soft red winter wheat (*Triticum aestivum* L.), was developed by Pioneer Hi-Bred International, Inc. Using a pedigree selection breeding method, ABF0205D5 was derived from the four parent cross: Pioneer line 'W9032B'// Pioneer line 'W1074B'// Pioneer line 'W1039B'// Northup King variety 'Coker 983'.

Pioneer line W9032B was derived from the cross: 'IN4946A4-18-2'// 'MO W7470'// Pioneer line 'W521'. IN4946A4-18-2 is an experimental line from Indiana and MO W7470 is from Missouri. The pedigree of Pioneer line W521 is unknown. Pioneer line W1074B was derived from the cross: Pioneer '2553 sib'// Pioneer line 'W747'. Pioneer line W747 was derived from the cross 'GA 80'// 'Timwin'. Pioneer line W1039B was derived from the cross: Pioneer line 'W727'// 2553 sib. Pioneer line W727 was derived from the cross GA80/ 'MO W7358'. MO W7538 is an experimental line from Missouri. The single crosses: W9032B/W1074B (designated 'ABE0103') and W1039B/Cok 983 (designated 'ABE0046') were made in the 1983 spring greenhouse cycle at Windfall, IN. The final cross ABE0103/ABE0046 was made in the 1984 fall greenhouse cycle and coded 'ABF0205'. The subsequent breeding history of ABF0205D5 was as follows:

Year	Generation	
1984	Final Cross	Cross designated ABF0205
1985	F1	Grown in spring transplant nursery at Windfall, IN.
1985-86	F2	Bulk populations grown at St. Matthews, SC. Individual head selections made.
1986-87	F3	Headrows of F2 selections grown at St. Matthews, SC.
1987-88	F4	F3 selections grown in F4 headrows at St. Matthews, SC and Statesboro, Ga.
1988-89	F5	F4 selections grown in F5 headrows at St. Matthews, SC and Statesboro, GA.
1989-90	F6	Preliminary yield testing of F5 selections at St. Matthews, SC; one selection designated 'ABF0205D5'.
1990-91	F7	Advanced yield testing of ABF0205D5. 200 heads harvested.
1991-92	F8	Elite yield testing of ABF0205D5. 200 purification headrows grown, surrounded by .13 acre bulk increase at St. Matthews, SC. Breeder seed turned over to Pioneer Parent Seed Operations for further increase.

## 14A. Exhibit A. (cont.)

1992-93 F9 Elite yield testing continued, designated as 'YW522'. Pioneer Parent Seed Operations continued increase.

1993-94 F10 Elite yield testing continued, designated as 'XW522'. Pioneer Parent Seed Operations continued increase.

Decision to release will be made in Aug. 1994, at which time ABF0205D5 will be assigned a commercial code.

The cultivar ABF0205D5 was bred and selected at each generation for any or all of the following characteristics: disease resistance, plant type, plant height, head type, straw strength, maturity, grain yield, test weight, and milling and baking qualities.

ABF0205D5 has been observed to be uniform and stable since the sixth generation, or the last four generations. Variants that may persist are awned plants at a frequency of less than 2/45,000.

## 14B. Novelty Statement:

12643' AAA 2 de 1974

~~ABF0205D5~~ is most similar to Northup King variety Coker 983, but with the following distinguishing characteristics:

- 1) The flag leaf of ABF0205D5 at booting is not twisted while the flag leaf of Coker 983 is twisted.
- 2) The color of ABF0205D5 at booting is green while the color of Coker 983 is blue-green.
- 3) The auricles of ABF0205D5 are not pubescent while the auricles of Coker 983 are pubescent.
- 4) ABF0205D5 is awnletted while Coker 983 is apically awnletted.

U. S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, MEAT, GRAIN AND SEED DIVISION  
BELTSVILLE, MARYLAND 20785

EXHIBIT C  
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY  
WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

FOR OFFICIAL USE ONLY

Pioneer Hi-Bred International, Inc.

PVPO NUMBER

9400209

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

Department of Wheat Breeding

R.R. 1 Box 297A

Windfall, IN 46076

VARIETY NAME OR TEMPORARY DESIGNATION

2642 2 Dec 1994  
ABE0205D5 (temp. designation)

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in first box (e.g., 089 or 09 ) when number is either 99 or less or 9 or less.

## 1. KIND:

1 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

## 2. TYPE:

2 1 = SPRING 2 = WINTER 3 = OTHER (Specify) 1 1 = SOFT 3 = OTHER (Specify)  
2 = HARD

2 1 = WHITE 2 = RED 3 = OTHER (Specify)

## 3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

1 3 7 FIRST FLOWERING 1 4 1 LAST FLOWERING

## 4. MATURITY (50% Flowering):

0 4 NO. OF DAYS EARLIER THAN 7 1 = ARTHUR 2 = SCOUT 3 = CHRIS 7 = 2548  
NO. OF DAYS LATER THAN 4 = LEMHI 5 = NUGAINES 6 = LEEDS

## 5. PLANT HEIGHT (From soil level to top of head):

0 8 1 CM. HIGH  
CM. TALLER THAN  
0 7 CM. SHORTER THAN 7 1 = ARTHUR 2 = SCOUT 3 = CHRIS 7 = 2548  
4 = LEMHI 5 = NUGAINES 6 = LEEDS

## 6. PLANT COLOR AT BOOTING (See reverse):

2 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

## 7. ANTER COLOR:

1 1 = YELLOW 2 = PURPLE

## 8. STEM:

2 Anthocyanin: 1 = ABSENT 2 = PRESENT 2 Waxy bloom: 1 = ABSENT 2 = PRESENT

1 Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT 1 Internodes: 1 = HOLLOW 2 = SOLID

0 4 NO. OF NODES (Originating from node above ground) 1 6 CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

## 9. AURICLES:

1 Anthocyanin: 1 = ABSENT 2 = PRESENT 1 Hairiness: 1 = ABSENT 2 = PRESENT

## 10. LEAF:

2 Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 1 Flag leaf: 1 = NOT TWISTED 2 = TWISTED  
3 = OTHER (Specify):

1 Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT 2 Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT

1 3 MM. LEAF WIDTH (First leaf below flag leaf) 2 1 CM. LEAF LENGTH (First leaf below flag leaf):

## 11. HEAD:

 Density: 1 = LAX 2 = DENSE

 Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE  
4 = OTHER (Specify) \_\_\_\_\_

 Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

 Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED  
5 = BROWN 6 = BLACK 7 = OTHER (Specify): \_\_\_\_\_

  CM. LENGTH

  MM. WIDTH

## 12. GLUMES AT MATURITY:

 Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.)  
3 = LONG (CA. 9 mm.)

 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.)  
3 = WIDE (CA. 4 mm.)

 Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED  
4 = SQUARE 5 = ELEVATED 6 = APICULATE

 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

## 13. COLEOPTILE COLOR:

 1 = WHITE 2 = RED 3 = PURPLE

## 14. SEEDLING ANTHOCYANIN:

 1 = ABSENT 2 = PRESENT

## 15. JUVENILE PLANT GROWTH HABIT:

 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

## 16. SEED:

 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

 Cheek: 1 = ROUNDED 2 = ANGULAR

 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

 Brush: 1 = NOT COLLARED 2 = COLLARED

 Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN  
4 = BROWN 5 = BLACK

 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) \_\_\_\_\_

  MM. LENGTH

  MM. WIDTH

  GM. PER 1000 SEEDS

## 17. SEED CREASE:

 Width: 1 = 60% OR LESS OF KERNEL 'WINOKA'  
2 = 80% OR LESS OF KERNEL 'CHRIS'  
3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT'  
2 = 35% OR LESS OF KERNEL 'CHRIS'  
3 = 50% OR LESS OF KERNEL 'LEMHI'

## 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

 STEM RUST  
(Races) \_\_\_\_\_

 LEAF RUST  
(Races) \_\_\_\_\_

 STRIPE RUST  
(Races) \_\_\_\_\_

 LOOSE SMUT

 POWDERY MILDEW

 BUNT

 OTHER (Specify) \_\_\_\_\_

## 19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

 SAWFLY

 APHID (Bydv.)

 GREEN BUG

 CEREAL LEAF BEETLE

 OTHER (Specify) \_\_\_\_\_

 HESSIAN FLY  
RACES:

 GP

 A

 B

 C

 D

 E

 F

 G

## 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Coker 983	Seed size	Coker 983
Leaf size	Coker 983	Seed shape	Coker 983
Leaf color	Pioneer 2566	Coleoptile elongation	Pioneer 2566
Leaf carriage	Coker 983	Seedling pigmentation	Pioneer 2566

## INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

- (a) L.W. Briggie and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.
- (b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

## 14D. Exhibit D. Additional Description of the Variety.

## 1) Yield and agronomic data.

12643' AAA 2 Dec 1994  
ABF0205D5 has been wide-scale yield tested, using comparative research plots since the 1991 growing season. Testing has been conducted across the area of adaption, including locations in Virginia, North Carolina, South Carolina, Georgia, Kentucky, Missouri, Tennessee, and Arkansas (Table 1).

## 2) Information on reaction to major diseases.

Leaf rust - Moderate resistance to prevalent races in southeastern region of the United States.

Powdery Mildew - Moderate resistance to prevalent races in southeastern region of the United States.

Wheat Spindle Streak Mosaic Virus - Moderate resistance.

Leaf Blights - Good tolerance to the complex of the most common organisms that cause leaf blights; including Septoria tritici blotch, Septoria nodorum blotch, and tan spot.

## 3) Information on reaction to major insects.

Hessian fly - Susceptible to the predominant biotypes of Hessian fly in the Southeast. Has screened susceptible to biotypes E and GP in testing conducted at the Department of Entomology at Purdue University in cooperation with the USDA-ARS Insect and Weed Control Research Unit.

## 4) Information on milling and baking qualities.

ABF0205D5 has demonstrated very satisfactory milling quality and baking quality as compared to current predominant soft wheat varieties (Table 2).



Table 1. Varietal yield performance and agronomic characteristics as recorded in Pioneer Elite Yield Tests during the period 1992-1993.

Cultivar	Yield	Test weight	Height	Heading date	Lodge	Leaf rust	Powdery mildew	Leaf blight	SS MV
	bu/ac	lbs/bu	cm	Jan. 1	1-9¶	1-9¶	1-9¶	1-9¶	1-9¶
Southeastern States:									
<del>ABF0205D5</del>	85.3	57.3	80.5	109.3	9.0	7.4	6.9	6.0	6.0
2548	77.1	56.7	87.6	113.5	8.0	6.3	5.3	6.5	4.0
2566	83.9	56.5	91.4	113.1	6.5	7.8	6.3	6.0	5.0
2580	89.2	56.3	95.8	110.0	5.0	6.0	6.4	5.5	3.5
COK 983	78.6	58.5	81.8	109.3	6.0	6.1	6.2	6.0	5.5
lsd (0.05)	5.9	0.7	5.1	2.2	1.6	0.9	0.6	1.7	1.6
# loc	19	17	3	4	1	6	10	1	1
# years	2	2	2	2	1	2	2	1	1

Upper Delta Region:

ABF0205D5	59.4	58.2	-	123.5	9.0	8.0	-	-	-
2548	67.1	56.6	-	123.5	8.0	6.0	-	-	-
2566	53.3	56.9	-	125.0	6.0	8.0	-	-	-
2580	60.1	56.3	-	122.5	6.0	6.5	-	-	-
Cardinal	59.6	56.7	-	126.0	3.0	7.0	-	-	-
Clark	57.2	57.8	-	125.0	6.5	7.5	-	-	-
lsd (0.05)	7.0	1.7	-	5.9	1.6	1.0	-	-	-
# loc	4	4	-	1	1	1	-	-	-
# years	1	1	-	1	1	1	-	-	-

¶ scale 1 to 9, where 9 = excellent or resistant; 1 = poor or susceptible.

Southeastern State Locations: Charles City, VA; Suffolk, VA; Edenton, NC; Greenville, NC;  
Rowland, NC; Monroe, NC; Darlington, SC; Manning, SC; St. Matthews, SC;  
Orangeburg, SC; Statesboro, GA; Dublin, GA; Americus, GA.

Upper Delta Region Locations: Russellville, KY; Sikeston, MO; Union City, TN; Des Arc, AR.

Table 2. Soft wheat quality data 1991-1993 from the Pioneer Quality Lab, Johnston, Iowa.

VARIETY	FLR YLD	BFL YLD	FLR PRO	FLR WR	CK	TOP GRN	TGR AB	MILLING SCORE	BAKING SCORE
<i>2643 AAA 2 Dec 1994</i>									
<del>ABF0205D5</del>	71.5	37.6	9.5	55.4	18.9	4.8	6.2	7	7
#obs	9	9	9	9	6	6	6		
2548	69.0	36.9	9.1	57.9	18.5	3.6	6.0	5	4
#obs	9	9	9	9	6	6	6		
2555	69.4	41.7	9.3	56.4	19.4	4.7	6.8	8	8
#obs	7	7	7	7	7	7	7		
2566	70.0	37.1	9.3	56.5	18.8	4.7	5.3	5	7
#obs	9	9	9	9	6	6	6		
2580	69.3	35.1	8.8	55.9	18.6	4.3	6.8	4	6
#obs	9	9	9	9	6	6	6		
COK 983	71.3	36.8	9.9	54.5	19.0	4.8	6.1	7	9
#obs	10	10	10	10	7	7	7		

Trait abbreviations used in the above table.

FLR YLD -- Flour yield (%)

BFL YLD -- Break flour yield (%)

FLR PRO -- Flour protein (%)

FLR WR -- Flour Alkaline Water Retention Capacity (%)

CK -- Cookie diameter (cm)

TOP GRN -- Top grain rating of cookie (1-9)  
(1= poor , 9= excellent)

TGR AB -- Top grain abnormalities of cookie (1-9)  
(1= narrow valleys, 9= wide valleys)

MILLING SCORE -- Rating which weights Flour yield 60% and  
Break flour yield 40% (1= poor, 9= excellent)

BAKING SCORE -- Rating which weights Cookie spread 60% and  
AWRC 40% (1= poor, 9= excellent)

## 14E. Exhibit E. Statement of the Basis of Applicant's Ownership

Pioneer Hi-Bred International, Inc., Research and Product Development, believes it is the sole, original, and first breeder of the ABE0205D5 cultivar of soft red winter wheat for which it solicits a certification of protection.

2643' AAA 2 Dec 1994